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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/788,837	02/26/2004	Georges Harik	GGL-071-01-US	6940
22835	7590	08/04/2006	EXAMINER	
PARK, VAUGHAN & FLEMING LLP 2820 FIFTH STREET DAVIS, CA 95618-7759			LEROUX, ETIENNE PIERRE	
			ART UNIT	PAPER NUMBER
			2161	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/788,837	Applicant(s) HARIK ET AL.	
	Examiner Etienne P. LeRoux	Art Unit 2161	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☒ Claim(s) 7, 15, 16, 32 and 33 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2/26/04</u> . | 6) <input type="checkbox"/> Other: _____ |

Claim Status:

Claims 1-35 are pending. Claims 1-7, 9-14, 17-31, 34 and 35 are rejected and claims 7, 15, 16, 32 and 33 are objected to.

Claim Objection

Claims 7, 15, 16, 32 and 33 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims. The limitation(s) of claims 7, 15, 16, 32 and 33 constitute allowable subject matter.

Specification

The disclosure is objected to because of the following informalities:

Page 9 includes “computer instruction signals embodied in a transmission medium (with or without a carrier wave upon which the signals are modulated).” Applicant is required to eliminate reference to carrier wave.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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Claims 1, 9, 10, 13, 14, 30 and 31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites “so that if a cluster node in the probabilistic model fires, a weighted link from the cluster node to another node causes the other node to fire a probability proportionate to the link weight.” The claim limitation is indefinite because the condition(s) under which the cluster node “fires” is/are difficult to ascertain. Furthermore, it is unclear what happens if the cluster node does not “fire.” Claims 18 and 35 include claim language similar to claim 1 and is thus rejected on a similar basis. In particular, claim 35 includes “can contain cluster nodes representing clusters of conceptually related words.”

Claim 9 recites “can involve” and also “likely to be generated.” The limitation is indefinite because the limitation is not positively recited. Furthermore, it is unclear why a new link is added to a cluster which is not associated with a new term.

Claim 10 is indefinite for reasons similar to claim 9.

Claims 13 and 30 are indefinite because of the claim language “likely to fire” and furthermore, “the other nodes” are not comprehended.

Claims 14 and 31 are indefinite because of the claim language “likely to be active,” and “that occur earlier in an identifier space” and “later in the identifier space.”

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6, 8-14, 17-31 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pub No US 2002/0087310 issued to Lee et al (hereafter (Lee) in view of Pub No US 2004/0088308 issued to Bailey et al (hereafter Bailey), as best examiner is able to ascertain.

Claims 1, 8-14, 17, 18, 22, 24-31 and 34:

Lee discloses receiving a current model, which contains terminal nodes representing random variables for words and can contain cluster nodes representing clusters of conceptually related words; wherein nodes in the current model are coupled together by weighted links, so that if a cluster node in the probabilistic model fires, a weighted link from the cluster node to another node causes the other node to fire with a probability proportionate to the link weight [Fig 3, paragraphs 107 and 108];

Lee discloses the elements of claimed invention as noted above but does not disclose receiving a set of training documents, wherein each training document contains a set of words; and applying the set of training documents to the current model to produce a new model. Bailey discloses receiving a set of training documents, wherein each training document contains a set of words; and applying the set of training documents to the current model to produce a new model [paragraph 107]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lee to include receiving a set of training documents, wherein each training document contains a set of words; and applying the set of training documents to the current model to produce a new model as taught by Bailey for the purpose of calculating and updating the model parameters of probabilities [paragraph 107].

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Claims 2, 5 and 19:

The combination of Lee and Bailey discloses the elements of claim 1 as noted above and furthermore discloses wherein applying the set of training documents to the current model involves applying the set of training documents to the links defined in the current model to produce functions for weights for corresponding links in the new model and optimizing the functions to produce weights for links in the new model [Bailey, paragraph 107].

Claims 3 and 20:

The combination of Lee and Bailey discloses the elements of claims 1 and 2 as noted above and furthermore discloses wherein for a given link, producing functions for a weight on the given link involves producing a function for the given link for each document in the set of training documents; and multiplying the functions for each document together to produce a function to be optimized for the given link [Bailey, paragraph 107]

Claims 4 and 21:

The combination of Lee and Bailey discloses the elements of claims 1-3 as noted above and furthermore discloses wherein for the given link the function for a document is an approximation of the probability of the document's terminals firing as a function of the weight on the given link, keeping all other link weights in the model constant [Bailey, paragraph 107]

Claims 6 and 23:

The combination of Lee and Bailey discloses the elements of claims 1-3 as noted above and furthermore discloses wherein during an initial iteration, the method further comprises generating an initial current model from a set of words by generating a universal node that is

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always active, generating terminal nodes representing words in the set of words; and directly linking the universal node to the terminal nodes [Lee, Figure 3]

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Etienne P. LeRoux whose telephone number is (571) 272-4022. The examiner can normally be reached Monday through Friday, 8:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christian Chace can be reached on (571) 272-4190. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Etienne LeRoux

8/3/2006

EP LeRoux
Primary Examiner